

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, Washington, DC 20231" on

Atty Dkt No. 0150-0005
PATENT

GAU 3763

Signature

O I P E
Date
JUN 18 2002

June 10, 2002
Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of:

David J. MILLER et al.

Serial No.: 10/014,741

Group Art Unit: 3763

Filing Date: December 10, 2001

Examiner: Unassigned

Title: METHOD FOR INCREASING THE BATTERY LIFE OF AN ALTERNATING CURRENT IOTOPHORESIS DEVICE USING A BARRIER-MODIFYING AGENT

ANSWERED
PHB/JLZ
RECEIVED

JUN 25 2002

TECHNOLOGY CENTER R3700

JUN 26 2002

RECEIVED
R3700 MAIL ROOM

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, DC 20231

Sir:

This is a Supplemental Information Disclosure Statement submitted for the Examiner's consideration. Applicants respectfully request that the Examiner review and make of record the references identified below.

The references identified below were disclosed and/or cited in parent application Serial Nos. 09/783,138 and 09/783,696, both filed February 13, 2001. As such, copies of the references are not included pursuant to the provisions of 37 CFR § 1.98(d).

U.S. PATENT DOCUMENTS		
Document No.	Issue Date or Publication Date	Name of Patentee or Applicant
3,991,755	11/16/76	Vernon, et al.
4,141,359	2/27/79	Jacobsen, et al.
4,325,367	4/20/82	Tapper
4,340,047	7/20/82	Tapper, et al.
4,406,658	9/27/83	Lattin, et al.
4,689,039	8/25/87	Masaki
4,702,732	10/27/87	Powers, et al.
4,734,090	3/29/88	Sibalis
4,752,285	6/21/88	Petelenz, et al.
4,764,164	8/16/88	Sasaki
4,786,278	11/22/88	Masaki
4,792,702	12/20/88	Masaki
4,850,956	7/25/89	Bontemps
4,931,046	6/5/90	Newman
5,002,527	3/26/91	Reller, et al.
5,006,108	4/9/91	LaPrade
5,013,293	5/7/91	Sibalis

U.S. PATENT DOCUMENTS		
Document No.	Issue Date or Publication Date	Name of Patentee or Applicant
5,019,034	5/28/91	Weaver, et al.
5,023,085	6/11/91	Francoeur, et al.
5,036,861	8/6/91	Sembrowich, et al.
5,042,975	8/27/91	Chien, et al.
5,047,007	9/10/91	McNichols, et al.
5,056,521	10/15/91	Parsons, et al.
5,057,072	10/15/91	Phipps
5,140,985	8/25/92	Schroeder, et al.
5,213,568	5/25/93	Lattin, et al.
5,224,927	7/6/93	Tapper
5,279,543	1/18/94	Glikfeld, et al.
5,312,325	5/17/94	Sibalis
5,314,502	5/24/94	McNichols, et al.
5,318,514	6/7/94	Hofmann
5,328,452	7/12/94	Sibalis
5,328,453	7/12/94	Sibalis
5,328,454	7/12/94	Sibalis
5,336,168	8/9/94	Sibalis
5,362,307	11/8/94	Guy, et al.
5,372,579	12/13/94	Sibalis
5,391,195	2/21/95	Van Groningen
5,395,310	3/7/95	Untereker, et al.
5,405,317	4/11/95	Myers, et al.
5,415,629	5/16/95	Henley
5,421,817	6/6/95	Liss, et al.
5,423,739	6/13/95	Phipps, et al.
5,443,441	8/22/95	De Claviere
5,465,713	11/14/95	Schoendorfer
5,499,967	3/19/96	Teillaud, et al.
5,538,503	7/23/96	Henley
5,571,149	11/5/96	Liss, et al
5,617,851	4/8/97	Lipkovker
5,620,580	4/15/97	Okabe, et al.
5,645,526	7/8/97	Flower
5,658,247	8/19/97	Henley
5,667,487	9/16/97	Henley
5,676,144	10/14/97	Schoendorfer
5,722,397	3/3/98	Eppstein
5,730,714	3/24/98	Guy, et al.
5,771,890	6/30/98	Tamada
5,817,012	10/6/98	Schoendorfer
5,827,181	10/27/98	Dias, et al.
5,885,211	3/23/99	Eppstein, et al.
5,899,876	5/4/99	Flower
5,911,223	6/15/99	Weaver, et al.
5,928,571	7/27/99	Chan
5,944,662	8/31/99	Schoendorfer
5,947,921	9/7/99	Johnson, et al.
5,954,685	9/21/99	Tierney
5,968,006	10/19/99	Hofmann
5,978,701	11/2/99	Johnson, et al.
5,983,131	11/9/99	Weaver, et al.
5,989,409	11/23/99	Kurnik, et al.

U.S. PATENT DOCUMENTS		
Document No.	Issue Date or Publication Date	Name of Patentee or Applicant
5,991,655	11/23/99	Gross, et al.
5,997,501	12/7/99	Gross et al.
6,006,130	12/21/99	Higo, et al.
6,010,613	1/4/2000	Walters, et al.
6,023,629	2/8/2000	Tamada
6,018,679	1/25/2000	Dinh, et al.
6,041,252	3/21/2000	Walker, et al.
6,041,253	3/21/2000	Kost, et al.
6,048,337	4/11/2000	Svedman

FOREIGN PATENT DOCUMENTS		
Document No.	Publication Date	Country
DE 4137960 A1	5/27/93	Germany
EP 0254166 A2	1/27/88	Europe
EP 0266083 A1	5/04/88	Europe
EP 0308572 A2	3/29/89	Europe
EP 0468636 A1	1/29/92	Europe
EP 0847775 A1	6/17/98	Europe
GB 2177928 A	2/4/87	United Kingdom
JP 409276416 A	10/28/77	Japan
JP 402124176 A	5/11/90	Japan
JP 402243168 A	9/27/90	Japan
JP 403045272 A	2/26/91	Japan
JP 405049702 A	3/2/93	Japan
JP 407067971 A	3/14/95	Japan
JP 408052224 A	2/27/96	Japan
JP 408322948 A	12/10/96	Japan
JP 411019226 A	1/26/99	Japan
WO 88/00846	2/11/88	PCT
WO 91/15256	10/17/91	PCT
WO 91/15257	10/17/91	PCT
WO 92/18197	10/29/92	PCT
WO 94/05368	3/17/94	PCT
WO 94/28967	12/22/94	PCT
WO 97/07853	3/06/97	PCT
WO 98/14235	4/9/98	PCT
WO 99/30773	6/24/99	PCT
WO 99/43383	9/2/99	PCT
WO 99/52589	10/21/99	PCT

NONPATENT DOCUMENTS		
Dalziel, et al. (1950), "Effect of Frequency On Perception Currents," <i>AIEE Transactions</i> 69:1162-1168.		
Dalziel, et al. (1956), "Let-Go Currents and Voltages," <i>AIEE Transactions</i> 75:49.56.		
Delgado-Charro et al. (1994), "Characterization of Convective Solvent Flower During Iontophoresis," <i>Pharmaceutical Research</i> 11(7):929-935.		
Higuchi et al. (1999), "Mechanistic Aspects of Iontophoresis In Human Epidermal Membrane," <i>Journal of Controlled Release</i> 62:13-23.		
Kim et al. (1993), "Convective Solvent Flow Across the Skin During Iontophoresis," <i>Pharmaceutical Research</i> 10(9):1315-1319.		
Li, et al. (1999), "Pore Induction in Human Epidermal Membrane During Low to Moderate Voltage Iontophoresis: A Study Using AC Iontophoresis," <i>Journal of Pharmaceutical Sciences</i> 88(4):419-427.		

NONPATENT DOCUMENTS

Li, et al. (1998), "Characterization of the Transport Pathways Induced During Lower to Moderate Voltage Iontophoresis in Human Epidermal Membrane," <i>Journal of Pharmaceutical Sciences</i> 87(1):40-48.
Li, et al. (1998), "Lag Time Data for Characterizing the Pore Pathway of Intact and Chemically Pretreated Human Epidermal Membrane," <i>International Journal of Pharmaceutics</i> 170:93-108.
Li, et al. (1999), "Pore Charge Distribution Considerations In Human Epidermal Membrane Electroosmosis," <i>Journal of Pharmaceutical Sciences</i> 88(10):1044-1049.
Peck, et al. (1998), "Flux Enhancement Effects of Ionic Surfactants Upon Passive and Electroosmotic Transdermal Transport," <i>Journal of Pharmaceutical Sciences</i> 87(9):1161-1169.
Sharma, et al. (2000), "Transdermal Drug Delivery Using Electroporation. II. Factors Influencing Skin Reversibility In Electroporative Delivery of Terazosin Hydrochloride in Hairless Rats," <i>Journal of Pharmaceutical Sciences</i> 89(4):536-544.
van der Geest et al. (1996), "Iontophoresis of Bases, Nucleosides, and Nucleotides," <i>Pharmaceutical Research</i> 13(4):553-558.

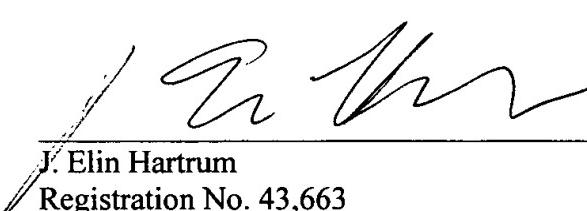
Applicants would appreciate the Examiner's initialing and returning the attached PTO-1449 forms to indicate that the references have been reviewed and made of record.

This Supplemental Information Disclosure Statement is not intended as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any of the above references constitutes prior art to the present application within the meaning of 35 USC § 102.

As applicants have not yet received a first Action on the merits, no fee is required for filing this Supplemental Information Disclosure Statement. If, however, the PTO finds that for some reason a fee is found to be necessary, our Deposit Account No. 18-0580 may be charged therefor. **A duplicate copy of this paper is enclosed.**

Respectfully submitted,

By:


J. Elin Hartrum
Registration No. 43,663

REED & ASSOCIATES
800 Menlo Avenue, Suite 210
Menlo Park, California 94025
(605) 330-0900 Telephone
(650) 330-0980 Facsimile

JUN 18 2002

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(use as many sheets as necessary)

Sheet 1 of 4

Complete if Known

Application Number	10/014,741
Filing Date	December 10, 2001
First Named Inventor	David J. MILLER et al.
Art Unit	3763
Examiner Name	Unassigned
Attorney Docket Number	0150-0005

RECEIVED

JUN 25 2002 TECHNOLOGY CENTER R3700

RECEIVED
JUN 26 2002
MAIL ROOM

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Document No.	Issue Date or Publication Date	Name of Patentee or Applicant of Cited Document	Class	Subclass
AW	3,991,755	11/16/76	Vernon, et al.			
AX	4,141,359	2/27/79	Jacobsen, et al.			
AY	4,325,367	4/20/82	Tapper			
AZ	4,340,047	7/20/82	Tapper, et al.			
BA	4,406,658	9/27/83	Lattin, et al.			
BB	4,689,039	8/25/87	Masaki			
BC	4,702,732	10/27/87	Powers, et al.			
BD	4,734,090	3/29/88	Sibalis			
BE	4,752,285	6/21/88	Petelenz, et al.			
BF	4,764,164	8/16/88	Sasaki			
BG	4,786,278	11/22/88	Masaki			
BH	4,792,702	12/20/88	Masaki			
BI	4,850,956	7/25/89	Bontemps			
BJ	4,931,046	6/5/90	Newman			
BK	5,002,527	3/26/91	Reller, et al.			
BL	5,006,108	4/9/91	LaPrade			
BM	5,013,293	5/7/91	Sibalis			
BN	5,019,034	5/28/91	Weaver, et al.			
BO	5,023,085	6/11/91	Francoeur, et al.			
BP	5,036,861	8/6/91	Sembrowich, et al.			
BQ	5,042,975	8/27/91	Chien, et al.			
BR	5,047,007	9/10/91	McNichols, et al.			
BS	5,056,521	10/15/91	Parsons, et al.			
BT	5,057,072	10/15/91	Phipps			
BU	5,140,985	8/25/92	Schroeder, et al.			
BV	5,213,568	5/25/93	Lattin, et al.			
BW	5,224,927	7/6/93	Tapper			
BX	5,279,543	1/18/94	Glikfeld, et al.			
BY	5,312,325	5/17/94	Sibalis			
BZ	5,314,502	5/24/94	McNichols, et al.			
CA	5,318,514	6/7/94	Hofmann			
CB	5,328,452	7/12/94	Sibalis			
CC	5,328,453	7/12/94	Sibalis			
CD	5,328,454	7/12/94	Sibalis			
CE	5,336,168	8/9/94	Sibalis			
CF	5,362,307	11/8/94	Guy, et al.			
CG	5,372,579	12/13/94	Sibalis			
CH	5,391,195	2/21/95	Van Groningen			
CI	5,395,310	3/7/95	Untereker, et al.			
CJ	5,405,317	4/11/95	Myers, et al.			
CK	5,415,629	5/16/95	Henley			
CL	5,421,817	6/6/95	Liss, et al.			
CM	5,423,739	6/13/95	Phipps, et al.			

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

JUN 18 2002
U.S. PATENT AND TRADEMARK OFFICE

Sheet

2

of

4

Complete if Known

Application Number	10/014,741
Filing Date	December 10, 2001
First Named Inventor	David J. MILLER et al.
Art Unit	3763
Examiner Name	Unassigned
Attorney Docket Number	0150-0005

Sheet	2	of	4	Attorney Docket Number
				0150-0005

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	Document No.	Issue Date or Publication Date	Name of Patentee or Applicant of Cited Document	Class	Subclass	Filing Date if Appropriate
	CN	5,443,441	8/22/95	De Claviere			
	CO	5,465,713	11/14/95	Schoendorfer			
	CP	5,499,967	3/19/96	Teillaud, et al.			
	CQ	5,538,503	7/23/96	Henley			
	CR	5,571,149	11/5/96	Liss, et al			
	CS	5,617,851	4/8/97	Lipkovker			JUN 25 2002
	CT	5,620,580	4/15/97	Okabe, et al.			
	CU	5,645,526	7/8/97	Flower			TECHNOLOGY CENTER R3700
	CV	5,658,247	8/19/97	Henley			
	CW	5,667,487	9/16/97	Henley			
	CX	5,676,144	10/14/97	Schoendorfer			
	CY	5,722,397	3/3/98	Eppstein			
	CZ	5,730,714	3/24/98	Guy, et al.			
	DA	5,771,890	6/30/98	Tamada			
	DB	5,817,012	10/6/98	Schoendorfer			
	DC	5,827,181	10/27/98	Dias, et al.			
	DD	5,885,211	3/23/99	Eppstein, et al.			
	DE	5,899,876	5/4/99	Flower			
	DF	5,911,223	6/15/99	Weaver, et al.			
	DG	5,928,571	7/27/99	Chan			
	DH	5,944,662	8/31/99	Schoendorfer			
	DI	5,947,921	9/7/99	Johnson, et al.			
	DJ	5,954,685	9/21/99	Tierney			
	DK	5,968,006	10/19/99	Hofmann			
	DL	5,978,701	11/2/99	Johnson, et al.			
	DM	5,983,131	11/9/99	Weaver, et al.			
	DN	5,989,409	11/23/99	Kurnik, et al.			
	DO	5,991,655	11/23/99	Gross, et al.			
	DP	5,997,501	12/7/99	Gross et al.			
	DQ	6,006,130	12/21/99	Higo, et al.			
	DR	6,010,613	1/4/2000	Walters, et al.			
	DS	6,023,629	2/8/2000	Tamada			
	DT	6,018,679	1/25/2000	Dinh, et al.			
	DU	6,041,252	3/21/2000	Walker, et al.			
	DV	6,041,253	3/21/2000	Kost, et al.			
	DW	6,048,337	4/11/2000	Svedman			

RECEIVEDJUN 26 2002
TECHNOLOGY CENTER R3700
MAIL ROOM**RECEIVED**

Examiner Signature		Date Considered
--------------------	--	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(use as many sheets as necessary)

JUN 18 2002

Sheet 3 of 4

Complete if Known

Application Number	10/014,741
Filing Date	December 10, 2001
First Named Inventor	David J. MILLER et al.
Art Unit	3763
Examiner Name	Unassigned
Attorney Docket Number	0150-0005

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document No.	Publication Date	Country	Class	Subclass T
	DX	DE 4137960 A1	5/27/93	Germany		
	DY	EP 0254166 A2	1/27/88	Europe		
	DZ	EP 0266083 A1	5/04/88	Europe		
	EA	EP 0308572 A2	3/29/89	Europe		
	EB	EP 0468636 A1	1/29/92	Europe		
	EC	EP 0847775 A1	6/17/98	Europe		
	ED	GB 2177928 A	2/4/87	United Kingdom		
	EE	JP 409276416 A	10/28/77	Japan		
	EF	JP 402124176 A	5/11/90	Japan		
	EG	JP 402243168 A	9/27/90	Japan		
	EH	JP 403045272 A	2/26/91	Japan	JUN 25 2002	
	EI	JP 405049702 A	3/2/93	Japan		
	EJ	JP 407067971 A	3/14/95	Japan	TECHNOLOGY CENTER R0700	
	EK	JP 408052224 A	2/27/96	Japan		
	EL	JP 408322948 A	12/10/96	Japan		
	EM	JP 411019226 A	1/26/99	Japan		
	EN	WO 88/00846	2/11/88	PCT		
	EO	WO 91/15256	10/17/91	PCT		
	EP	WO 91/15257	10/17/91	PCT		
	EQ	WO 92/18197	10/29/92	PCT		
	ER	WO 94/05368	3/17/94	PCT		
	ES	WO 94/28967	12/22/94	PCT		
	ET	WO 97/07853	3/06/97	PCT		
	EU	WO 98/14235	4/9/98	PCT		
	EV	WO 99/30773	6/24/99	PCT		
	EW	WO 99/43383	9/2/99	PCT		
	EX	WO 99/52589	10/21/99	PCT		

RECEIVED

JUN 25 2002

TECHNOLOGY CENTER R0700

RECEIVED

JUN 26 2002

TECHNOLOGY CENTER R0700

OTHER DOCUMENTS — NONPATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), Title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T
EY		Dalziel, et al. (1950), "Effect of Frequency On Perception Currents," <i>AIEE Transactions</i> 69:1162-1168.				
EZ		Dalziel, et al. (1956), "Let-Go Currents and Voltages," <i>AIEE Transactions</i> 75:49.56.				
FA		Delgado-Charro et al. (1994), "Characterization of Convective Solvent Flow During Iontophoresis," <i>Pharmaceutical Research</i> 11(7):929-935.				
FB		Higuchi et al. (1999), "Mechanistic Aspects of Iontophoresis In Human Epidermal Membrane," <i>Journal of Controlled Release</i> 62:13-23.				
FC		Kim et al. (1993), "Convective Solvent Flow Across the Skin During Iontophoresis," <i>Pharmaceutical Research</i> 10(9):1315-1319.				
FD		Li, et al. (1999), "Pore Induction in Human Epidermal Membrane During Low to Moderate Voltage Iontophoresis: A Study Using AC Iontophoresis," <i>Journal of Pharmaceutical Sciences</i> 88(4):419-427.				
FE		Li, et al. (1998), "Characterization of the Transport Pathways Induced During Lower to Moderate Voltage Iontophoresis in Human Epidermal Membrane," <i>Journal of Pharmaceutical Sciences</i> 87(1):40-48.				

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 149A/PTO

JUN 18 2002

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

4

of

4

Complete if Known

Application Number	10/014,741
Filing Date	December 10, 2001
First Named Inventor	David J. MILLER et al.
Art Unit	3763
Examiner Name	Unassigned
Attorney Docket Number	0150-0005

OTHER DOCUMENTS — NONPATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), Title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	FF	Li, et al. (1998), "Lag Time Data for Characterizing the Pore Pathway of Intact and Chemically Pretreated Human Epidermal Membrane," <i>International Journal of Pharmaceutics</i> 170:93-108.	
	FG	Li, et al. (1999), "Pore Charge Distribution Considerations In Human Epidermal Membrane Electroosmosis," <i>Journal of Pharmaceutical Sciences</i> 88(10):1044-1049.	
	FH	Peck, et al. (1998), "Flux Enhancement Effects of Ionic Surfactants Upon Passive and Electroosmotic Transdermal Transport," <i>Journal of Pharmaceutical Sciences</i> 87(9):1161-1169.	
	FI	Sharma, et al. (2000), "Transdermal Drug Delivery Using Electroporation. II. Factors Influencing Skin Reversibility In Electroporative Delivery of Terazosin Hydrochloride in Hairless Rats," <i>Journal of Pharmaceutical Sciences</i> 89(4):536-544.	
	FJ	van der Geest et al. (1996), "Iontophoresis of Bases, Nucleosides, and Nucleotides," <i>Pharmaceutical Research</i> 13(4):553-558.	

RECEIVED

JUN 25 2002

TECHNOLOGY CENTER R3700

RECEIVED

JUN 26 2002

TC 3700 MAIL ROOM

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.